

REMARKS

Favorable reconsideration is respectfully requested.

The claims are 1-4.

The above amendment is responsive to points set forth in the Official Action.

In this regard, "-SO₃H" has been deleted from the definition of group "-X" in the formula (I) in the component (E).

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pine (U.S. 4,361,640) in view of Matsubara et al. (U.S. 5,009,981).

This rejection is respectfully traversed.

The above-amended present composition contains neither a photosensitive diazo compound nor a sulfonic acid derivative such as benzenesulfonic acid, naphthalenesulfonic acid etc. Therefore, it is considered that the rejection based on Pine and Matsubara is overcome by the above amendment.

Firstly in this regard, a negative photosensitive composition containing a photosensitive diazo compound such as in Matsubara and a negative photosensitive resin composition such as in Pine or the present invention (basically containing a resin, a polymerization monomer and a photopolymerization initiator), are absolutely different materials that form images on distinctly different principles from each other as described below.

In the former negative photosensitive resin composition containing a photosensitive diazo compound, the diazo compound (a diazonium salt) absorbs light to produce an aromatic radical cation, whereby an anion forming the salt removes a hydrogen atom from a hydroxyl group on the side chain of a hydroxyl group containing polymer, which coexists in the composition with the diazo compound, thereby producing an oxygen radical on the side chain of the polymer. In consequence, the aromatic radical cation bonds to the oxygen radical, to form a crosslinked polymer, thereby forming a negative image.

On the other hand, in the latter negative photosensitive resin composition basically containing a resin, a polymerization monomer and a photopolymerization initiator, the photopolymerization initiator absorbs light to produce a radical. The radical attacks an

unsaturated bond in the polymerizable monomer, whereby a chain polymerization reaction occurs with the polymerizable monomer, thereby forming a negative image.

As described above, the former and the latter are materials that form images on distinctly different principles from each other, and this is well-known to one of ordinary skill in the art.

Secondly, Matsubara does not disclose or suggest the compound represented by the formula (I) used in the present invention.

Therefore, even though sulfonic acid derivatives, such as benzenesulfonic acid and naphthalenesulfonic acid, etc., are disclosed as additives in Matsubara, those skilled in the art would not have been motivated to use the compound represented by the formula (I) in Pine's photopolymerizable composition.

Furthermore, in Matsubara, which is directed to the former negative photosensitive composition, benzenesulfonic acid and naphthalenesulfonic acid are exemplified as stabilizers. Therefore, it would not have been obvious to those skilled in the art to expect that the latter negative photosensitive resin composition basically containing a resin, a polymerization monomer and a photopolymerization initiator, is able to exhibit increased depth of non-printing area merely by adding the compound represented by the formula (I) from a completely different system in the specified small amount.

The composition described in Matsubara is distinctly different from those of Pine and the present invention, and therefore, even though a sulfonic acid derivative as an additive is disclosed in Matsubara, those skilled in the art would not have been motivated to employ the composition represented by the formula (I) to use in the composition of Pine.

As discussed above, since the composition described in Matsubara is different from those of Pine and the present invention, and there is no description in Matsubara of the composition represented by the formula (I), using the composition of the formula (I) employed in the present invention as an additive for the composition of Pine would not be rendered obvious to those skilled in the art.

Even if the composition of formula (I) is used for the composition of Pine, those skilled in the art would not be motivated to make the present invention by use of the additives in the defined

ranges, so as to yield the effects of the present invention i.e. to deepen the non-printing area from such references.


In view of the above, newly amended claim 1 and claim 2-4, all of which depend from claim 1, are unobvious from Pine in view of Matsubara.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

Hiroshi TAKANASHI et al.

By: 
Matthew Jacob
Registration No. 25,154
Attorney for Applicants

MJ/da
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
September 22, 2003